IN THE CLAIMS:

Please cancel Claims 9-14, without prejudice to or disclaimer of the subject matter recited therein. Please amend Claims 15 and 16 as follows.

1. (Original) A birefringence measuring apparatus, comprising:

a light projecting unit for projecting approximately circularly polarized light upon a sample;

a Stokes meter for detecting a state of polarization of light from the sample; and

calculating means for calculating birefringence of the sample on the basis of a Stokes parameter from said Stokes meter.

2. (Original) An apparatus according to Claim 1, wherein said light projecting unit includes a light source and converting means for converting light from the light source into approximately circularly polarized light.

3. (Original) An apparatus according to Claim 2, wherein said converting means includes a phase difference plate.

4. (Original) An apparatus according to Claim 2, wherein the light from the light source has a wavelength not greater than 370 nm.

5. (Original) An apparatus according to Claim 2, wherein the light from the light source has a wavelength not greater than 200 nm.

6. (Original) An apparatus according to Claim 1, further comprising a dividing unit including three optical elements having the same reflection characteristic and the same transmission characteristic.

7. (Original) An apparatus according to Claim 1, wherein said calculating means calculates the birefringence of the sample on the basis of the following equations:

$$B = \frac{\pi}{2} - \arcsin\left(\frac{S_3}{S_0}\right)$$

$$\phi = -\frac{\pi}{4} + \frac{1}{2}\arctan\left(\frac{S_2}{S_1}\right)$$

where B is the amount of birefringence, ϕ is a phase advance axis angle, S_0 - S_3 are Stokes parameters wherein S_0 is a total light quantity, S_1 is a horizontal linear polarization component, S_2 is a +45 degree linear polarization component, and S_3 is a clockwise circular polarization component.

8. (Original) An apparatus according to Claim 1, further comprising a memory for memorizing birefringence measured by said birefringence measuring apparatus without a sample,

wherein said calculating means calculates the birefringence of the sample also on the basis of the birefringence memorized in said memory.

Claims 9-14. (Canceled)

15. (Currently Amended) A method of measuring birefringence, comprising the steps of:

projecting approximately circularly polarized light upon a sample;

detecting a light quantity of light from the sample;

determining a Stokes parameter on the basis of the detection of the light quantity; and

~~detecting~~ determining birefringence of the sample on the basis of the Stokes parameter.

16. (Currently Amended) A method according to Claim 15, wherein, in said birefringence ~~detecting~~ determining step, the birefringence of the sample is detected also on the basis of birefringence measured without a sample.